IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	) Art Unit:	2631
Rakib, et al.	) Examiner:	Unknown
Serial No.: 09/755,339	) Docket No:	TER-002.3P D2
Filed: 1/03/2001	)	

For: APPARATUS AND METHOD FOR SCDMA DIGITAL DATA TRANSMISSION USING ORTHOGONAL CODES AND HEAD END MODEM WITH NO TRACKING LOOPS

Honorable Commissioner
of Patents and Trademarks
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §§1.97-1.98, the undersigned would like to make the following prior art references of record in the above-identified patent application. The undersigned believes that some of these references may be material to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 C.F.R. §1.56.

While this Information Disclosure Statement may contain material information pursuant to 37 C.F.R. §1.56, it is not intended to constitute an admission that any individual reference referred to herein is prior art to the invention disclosed and claimed in the above-identified patent application.

Each reference listed herein may be accompanied by an explanation of its relevance. While this explanation is believed to generally reflect the contents of the references which the undersigned believes a reasonable examiner might consider relevant and material to the examination of the above-identified patent application, it is not intended that the examiner rely on the description as unfailingly accurate or complete. A copy of each reference is enclosed for

the express purpose of providing the examiner with an opportunity to perform an independent

evaluation to arrive at an independent assessment of its relevance and materiality, if any, to the

claimed subject matter.

Cited Art

Kajiwara and Nakagawa, *Spread Spectrum Demodulator Using Block Signal Processing*, IEEE, ICC '91, XP 000269616, pp. 894-898: Teaches a spread spectrum demodulator for cellular systems which uses block signal processing instead of real time demodulation thereby improving efficiency of data transmission by not losing data during acquisition. Block signal processing has been studied in satellite communications, but not in cellular because the multipath problem makes estimating carrier offset in the presence of multipath, interference and collisions with other signals too difficult. Authors propose using a matched filter following a quasi coherent demodulator to process sample data stored in a memory generated by A/D conversion of demodulator output. A digital matched filter feeds matched pulse recursive integrator to make an estimate of the timing offset. The matched filter is envelope detected and the envelope is threshold detected. The data is then processed for frequency and phase offset and the data in memory is then corrected before it is fed to a data decision circuit.

Johansson & Svensson, *Successive Interference Cancellation in Multiple Data Rate DS/CDMA Systems*, IEEE XP 000551625, published 7/25/95, pp. 706-708: Teaches a method for reducing multiple user interference in direct sequence, code division multiple access systems using successive interference cancellation. In this scheme, baseband signal containing the transmissions of multiple users is simultaneousl correlated against all the signature code sequences in parallel detectors. Then, the signal of the strongest user is detected first (it is assumed her signal will be the most correctly decoded). This detected strongest signal is then fed back to summation circuits so that it is cancelled out from the baseband signal fed into the correlators. Then, the second strongest signal is detected, and it is cancelled out from the baseband signals fed to the correlators. This process continues for all signals in the order of their power. To compensate for time differences in propagation time, the strongest users 0th and first symbol element are cancelled before the interference cancellation scheme is continued for the second strongest user since the second strongest user's 0th symbol is partly correlated

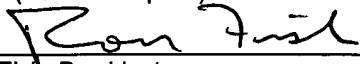against the strongest user's first symbol element because of different propagation times for these two users.

Respectfully submitted,

Dated: February 5, 2002

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I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington D.C. 20231 on February 5, 2002
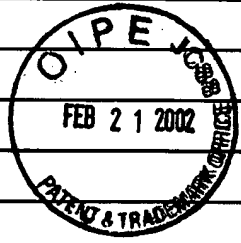(Date Of Deposit)

Ronald Craig Fish, President
Ronald Craig Fish a Law Corporation
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FORM PTO-1449 (Rev. 2-32)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. TER-002.3P D2	SERIAL NO. 09/755,339
	INFORMATION DISCLOSURE STATEMENT BY APPLICANT	APPLICANT Rakib et al.	
	(USE SEVERAL SHEETS IF NECESSARY)	FILING DATE 1/3/2001	GROUP 2631

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROP.

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FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER INITIAL		
		Johansson & Svensson, *Successive Interference Cancellation in Multiple Data Rate DS/CDMA Systems*, IEEE XP 000551625, published 7/25/95, pp. 706-708
		Kajiwara, Nakagawa, *Spread Spectrum Demodulator Using Block Signal Processing*, IEEE, IGC '91, XP 000269616, pp. 894-898

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EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.